

# The influence of human-animal relationships on public perception of the morality of animal use

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## Introduction

Public perception of the morality of different forms of animal use varies depending on factors such as human-animal relationships, utilitarian principles and perceptions of the species' sentience and ability to suffer (Morris, 2000; Dawkins, 2008; Palmer 2010). Public perception impacts on what is deemed acceptable animal use. However by basing acceptable animal treatment upon these factors this can cause a disconnect between what is viewed as acceptable treatment of the animal and its actual sentience and ability to suffer.

The public commonly attributes higher sentience to animals for which they have relational attachments such as companion animals. Greater concern is exhibited regarding their treatment, use and potential suffering (Gheaus, 2012). Animal experimentation commonly encounters controversy (Festing and Wilkinson, 2007) whilst farm animal practices traditionally encounter less public disapproval (Fraser, 2005). The relational attachment to companion animals, which are utilised in animal experimentation, but not production animals may impact upon this.

This study therefore investigated if public perceptions about the morality of animal use are influenced by human-animal relationships.

## Methods

An online questionnaire was utilized for the collection of participant responses (N=85) via promotion on social media websites such as Facebook and Twitter. Respondents were selected opportunistically and via a chain-referral strategy.

**Section 1: The relationship between public perception of the morality of intensive farming and animal experimentation:** Participants rated how acceptable they found these forms of animal use, how beneficial they felt these practices were for mankind and the welfare of animals used in scientific research and intensive farming. Spearman rank correlation tests were used to analyse relationships between these factors.

**Section 2: The effects of human-animal relationships on perceptions of the morality of animal use:** Participants rated their agreement with the consumption of dogs and pigs in various contexts and the use in research of different animal species (dogs, cats, primates, pigs, rabbits, rats and mice). Participants also rated how much they believed these species would suffer within various hypothetical scenarios within a research context (such as injection and restraint, CO<sub>2</sub> euthanasia, barren housing and the administration of toxic substances or performing of a surgical procedure without analgesia). Kruskal-Wallis tests were used to examine differences in acceptance of use and perceived level of suffering between different species. Where appropriate, post hoc Mann-Whitney U tests were carried out with a Bonferroni correction applied to minimise likelihood of type I errors. All analyses were carried out in SPSS version 20.0.

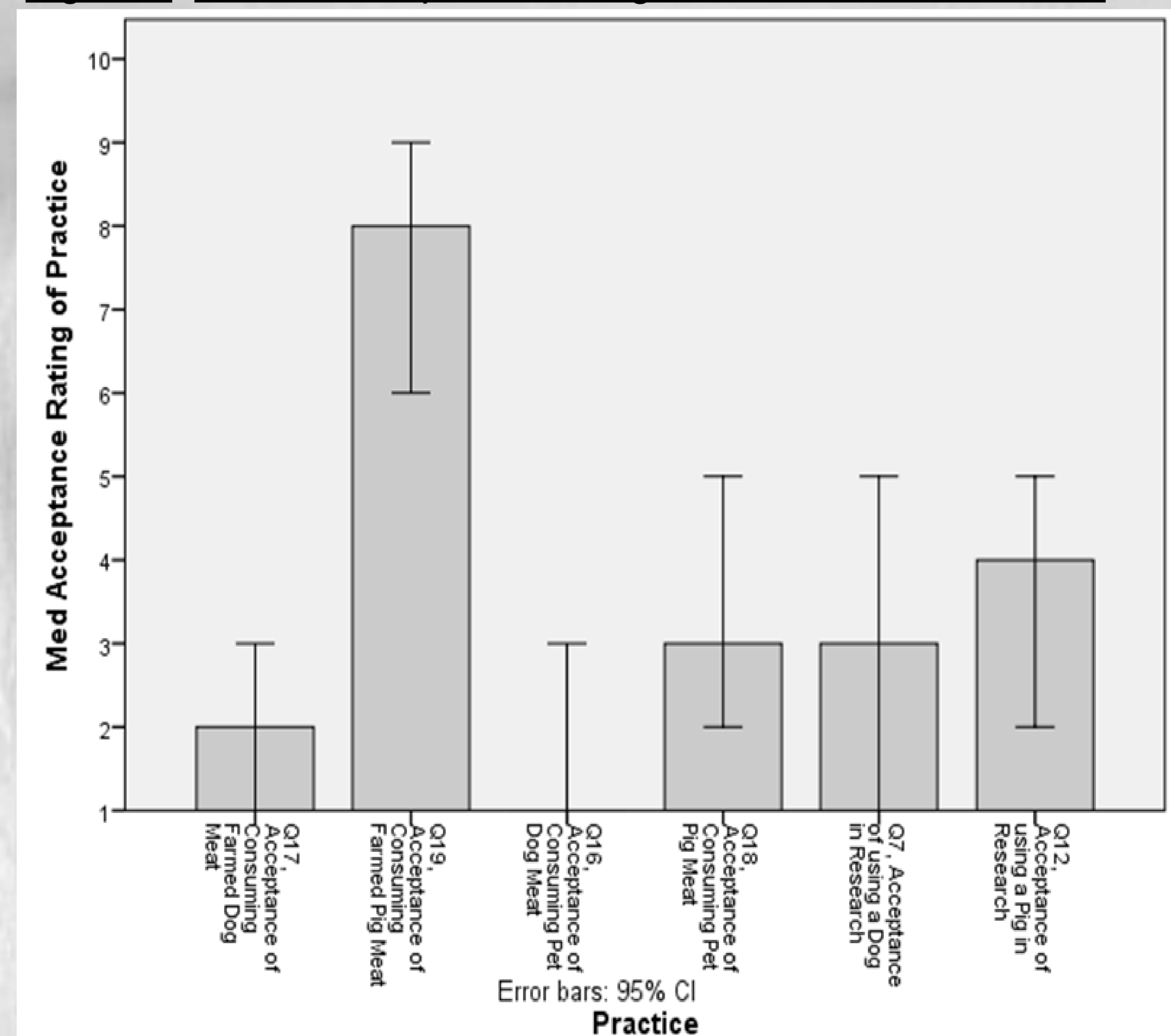
## Results

**Section 1: The relationship between public perception of the morality of intensive farming and animal experimentation:** There was a positive correlation found between public perception of the morality of animal experimentation and intensive farming ( $r_s(85) = 0.408$ ,  $p < 0.001$ ). Strong positive correlations were also found between how acceptable animal experimentation ( $r_s(85) = 0.859$ ,  $p < 0.001$ ) and intensive farming ( $r_s(85) = 0.866$ ,  $p < 0.001$ ) were deemed and how beneficial they were believed to be for mankind. Similar strong positive correlations were found between acceptance of these practices and perceived animal welfare for both animal experimentation ( $r_s(85) = 0.781$ ,  $p < 0.001$ ) and intensive farming ( $r_s(85) = 0.687$ ,  $p < 0.001$ ).

**Section 2: The effects of human-animal relationships on perceptions of the morality of animal use:** No significant differences were found between respondents' acceptance of animal experimentation utilising the different species ( $X^2_2=4.404$ ,  $n1=79$ ,  $n2=79$ ,  $n3=79$ ,  $n4=79$ ,  $n5=79$ ,  $n6=79$ ,  $n7=79$ ,  $P=0.622$ ). Whilst perceptions of levels of suffering were generally high during the hypothetical research scenarios, no significant differences were found between the perceived suffering experienced by different species.

There were no differences found between consuming farmed or pet dogs or using dogs in research, all practices poorly accepted, however consumption of farmed pigs was more accepted than consumption of pet dogs ( $U=1589.000$ ,  $n1=79$ ,  $n2=79$ ,  $P<0.001$ ), farmed dogs ( $U=1692.000$ ,  $n1=79$ ,  $n2=79$ ,  $P<0.001$ ), pet pigs ( $U=2069.500$ ,  $n1=79$ ,  $n2=79$ ,  $P<0.001$ ) or the use of dogs ( $U=1725.000$ ,  $n1=79$ ,  $n2=79$ ,  $P<0.001$ ) or pigs in research ( $U=1907.000$ ,  $n1=79$ ,  $n2=79$ ,  $P<0.001$ ) (Figure 1).

Figure 1: Median acceptance ratings of different animal uses.



## Discussion

**Section 1: The relationship between public perception of the morality of intensive farming and animal experimentation:** Animal experimentation was not perceived to be less acceptable than intensive farming, instead participants' acceptance of both forms of animal use corresponded. This suggests human-animal emotional relationships did not influence attitudes towards either practices. Rather, participants' acceptance of intensive farming and animal experimentation related to perceived benefits for mankind and animal welfare. The public therefore adopts a utilitarian stance regarding their acceptance of animal use (Morris, 2000). These findings suggest that human-animal emotional relationships are not promoting discord between the public and the scientific community or increasing tolerance towards intensive farming.

**Section 2: The effects of human-animal relationships on perceptions of the morality of animal use:** Whilst human-animal relationships were not found to influence the acceptance of using different species in research, the difference found between consuming pet pigs versus their use in research and farming and the uniform poor acceptance of consuming farmed or pet dogs or utilising dogs in research indicate how the human-animal relationship and the relational stance with which animals are viewed in a companion context can influence perceptions of the morality of animal use (Palmer, 2010; Gheaus, 2012). No differences was found between the perceived levels of suffering for the different species in the hypothetical research scenarios. However, the fact that participants rated suffering as high for all species indicates public awareness of potential causes of animal suffering. Whether the public relate an animal's ability to suffer to sentience is less clear though (Kirkwood and Hubrecht, 2001).